

REMARKS

In the Office Action mailed August 5, 2004, Claims 13-15 were rejected under 35 U.S.C. §102(b) as being anticipated by any of Pantoliano et al. (U.S. Patent No. 4,853,871), Holak et al. (J. Mol. Biol. (1989) 120, 635-648), Flaherty et al. (Proc. Natl. Acad. Sci. USA, 88, 5041-5045), or Mosimann et al. (Proteins : Structure , Function, and Genetics, 14, 392-400, 1992).

The foregoing rejections are respectfully traversed.

In accordance with the foregoing, Claim 13 has been amended. Claims 13-15 are pending and under consideration. No new matter is presented.

Pantoliano et al. discusses the geometric relationships between pairs of amino acid residues in a protein, the determination of centers-of-mass, and a root mean square error for fit of the amino acid pair with respect to disulfide bonds. More particularly Pantoliano et al., discusses examining "...the distance between the centers-of-mass of the pyramids formed within each of the two amino acids of the selected pair..." and the "...root-mean-squared (RMS) error for the fit of the selected amino acid pair as compared to each different observed disulfide bond in the library is recorded in computer memory..." (col. 8, lines 15-59).

Holak et al. discusses comparing three-dimensional structures of 34 structures of trypsin inhibitor with a minimized mean structure and calculating a root mean square distance between the structures. (Abstract; Page 642).

Flaherty et al. discusses a comparison of muscle actin and heat shock cognate protein and demonstrating that calculating the root mean square distance between comparable spatial fragments shows close similarity of the structure of the proteins. (Abstract; Page 5042).

Mosimann et al. discusses a comparison of molecular models of P-30 protein and pancreatic RNase, with the atom superposition of active site residues of the P-30 and an identically minimized RNase structure having a root mean square deviation of 0.52 Å. (Abstract; Page 398).

On the other hand, the present invention calculates a "...root mean square distance between the elements corresponding in the combination of correspondence..." generated to satisfy "...a restriction condition..." between the elements belonging to the first point set of three-dimensional coordinate of elements and the elements belonging to each of the subsets of the second point set, "...each of the subsets having a size that is determined by the size of the first point set...", as recited in amended independent Claim 13, from which Claims 14 and 15 depend.

Support for the amendment to Claim 13 is provided in the specification, wherein the "restriction condition" includes the "...number of candidates for a point to be related can be reduced by using an attribute of the point...to an element..." and it "...is determined whether the point is selected as a candidate by checking whether these attributes coincide" (page 37, lines 1-10). Also, "...the candidates for the point to be related can be reduced by adding a restriction to a specific element..." and as an example "...the candidates to be retrieved can be reduced by providing the restriction that the nil is not inserted to a certain point or by designating an attribute of point to a certain point" (page 37, lines 20-25).

Accordingly, we have amended independent Claim 13 to include a description of the "restriction condition" and a comparison of the "attribute value". None of the cited references Pantoliano et al., Holak et al., Flaherty et al., or Mosimann et al. teach or disclose at least this patentably distinguishing feature either alone or in combination.

Thus, amended independent Claim 13 is not anticipated by Pantoliano et al., Holak et al., Flaherty et al., or Mosimann et al. Further, as dependent Claims 14 and 15 depend from amended independent Claim 13, Claims 14 and 15 are not anticipated by any of the above-mentioned references either alone or in combination.

Concluding Remarks –

Accordingly, withdrawal of the foregoing rejections is respectfully requested and allowance of all pending claims 13-15 is requested.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.


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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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